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09/732,315	12/07/2000	Loi Han	5589-1045	1550

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EXAMINER

LEE, CHEUKFAN

ART UNIT	PAPER NUMBER
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2622

DATE MAILED: 08/11/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/732,315

**Applicant(s)**

HAN ET AL.

**Examiner**

Cheukfan Lee

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 December 2000.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner:  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>2</u> . | 6) <input type="checkbox"/> Other: _____  |

1. Claims 1-20 are pending. Claims 1, 6 and 13 are independent.
2. The disclosure is objected to because lines 14-19 of page 1 should include appropriate continuation data such as continuation, continuation-in-part, or divisional, if the present application is a CON application of any of the patent number and serial number stated.
3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 3, 5, 13, 17, and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Ishibe et al. (U.S. Patent No. (U.S. 5,838,364).

Regarding claim 1, Ishibe et al. discloses all subject matter claimed. A scanner (film player 1) comprises a housing (Figs. 1-3, 4A-4C), a digital camera (a combination of a light source (5) for illuminating an original, a line sensor (CCD 17) for converting light from the original to an electrical signal, and an analog-to-digital converter (A/D 52)) positioned within the housing, and a control system (CPU 40) for controlling scanning of objects (including piece film 13) (Fig. 6, Fig. 16(A)). The control system (40) has

software to convert the digital image data stored in a main memory (54) according to a predetermined scale of the display memory (56) of the display (television monitor). The main memory (54) is formed by  $2n$  by  $2m$  pixels (each having 6-bit gradation), and the display memory (56), which is in one-to-one correspondence to the screen of display monitor (television monitor), is formed by  $n$  by  $m$  pixels (each having 6-bit gradation). The data are transferred from the main memory (54) to the display memory (56) by skipping every other data of the main memory (54). The data in the display memory (56) are displayed on the display monitor (col. 9, line 12 – col. 10, line 20 and lines 41-49).

With regard to the claimed "scanning surface", though the originals (including piece film 13) are required to be fed to the scanning position, the original is stopped for once it is fed to the scanning station and is supported by supporting surface (shown in Fig. 4(B)) (Fig. 4(A), col. 4, lines 3-58). A rotating mirror (32 in 16) scans the stopped original by reflecting light from the original onto the line sensor (CCD 17). The original supporting surface reads on the claimed scanning surface.

Regarding claim 3, the display of Ishibe et al. is a television monitor.

Regarding claim 5, the software of the CPU allows changing the scale of the displayed image (col. 9, lines 41-49, col. 10, lines 10-25).

Claim 13 is rejected for the reasons given for claim 1. Please see discussion for claim 1. The main memory (54), which stores digital image data, reads on the claimed digital data storage medium. The digital image data in the main memory (54) is

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transferred/transmitted to the display memory (56) for display on the display monitor (television monitor) (col. 9, line 25 – col. 10, line 20).

Regarding claim 17, for shifting of the image, see Ishibe et al., col. 10, lines 21-67.

Regarding claim 19, see television monitor discussed above.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 4, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishibe et al. (U.S. Patent No. 5,838,364) and Deguchi et al. (U.S. Patent No. 5,754,713).

Regarding claim 4, Ishibe et al. discussed for claim 1 above does not disclose a removable data storage medium as claimed. However, an image reading device having a removable (image) data storage medium and an image data display is taught by Deguchi et al. (col. 5, lines 33-39 and col. 8, lines 38-53). The removable storage medium is inserted into slot (9 in Fig. 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide Ishibe et al. with the feature of a removable data storage medium of Deguchi et al. to allow external output or processing of the image data.

Regarding claim 14, as discussed for claim 4, Ishibe et al. does not disclose a removable digital data storage medium as claimed. Such removable digital data storage medium in a scanner is taught by Deguchi et al. as discussed. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide Ishibe et al. with a removable digital data storage medium as taught by Deguchi et al. in order to store the digital image data in the scanner on a removable storage medium to allow external output of processing of the image data.

Regarding claim 15, the software of the CPU (40) allows changing the scale of the display image (col. 9, lines 41-49, col. 10, lines 10-25).

7. Claims 6-10, 12, 16, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over (U.S. Patent No. 5,838,364) and Wong et al. (U.S. Patent No. 5,631,745).

Regarding claim 6, Ishibe et al. discloses a scanner projection system including a film player (1) and a display monitor (television monitor). The film player (1) comprises a housing (Figs. 1-3, 4A-4C), a light source (5) for illuminating an original, a line sensor (CCD 17) for converting light from the original to an electrical signal, and an analog-to-digital converter (A/D 52)) for converting the signals output from the linear CCD (17) to digital signals, and a control system (CPU 40) for controlling scanning of objects (including piece film 13) (Fig. 6, Fig. 16(A)). The control system (40) has software to convert the digital image data stored in a main memory (54) according to a predetermined scale of the display memory (56) of the display (television monitor). The

main memory (54) is formed by  $2n$  by  $2m$  pixels (each having 6-bit gradation), and the display memory (56), which is in one-to-one correspondence to the screen of display monitor (television monitor), is formed by  $n$  by  $m$  pixels (each having 6-bit gradation). The data are transferred from the main memory (54) to the display memory (56) by skipping every other data of the main memory (54). The data in the display memory (56) are displayed on the display monitor (col. 9, line 12 – col. 10, line 20 and lines 41-49).

Ishibe et al. differs from the claimed invention in that the original (film) scanner and the central processing unit (CPU 40) are integrated in the film player (1) instead of being stand-alone devices as claimed. However, a system including a stand-alone scanner (one type of I/O device 35), a stand-alone processing unit (11), and a stand-alone display (television monitor 17) is taught by Wong et al. The scanner (35) (col. 3, lines 40-53), processing unit (11) and display unit (17) are connected in such a way that the scanned image signals from the scanner are processed at the unit (11), and an image of the data processed by the unit (11) is projected on the display screen of TV set (17) (col. 3, lines 40-53, col. 13, lines 28-30).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Ishibe et al. and Wong et al. to provide a system having a stand-alone scanner, a stand-alone processing unit, and a stand alone display as claimed in order for the scanner, processing unit and display to operate independently, i.e., without the need to communicate with a host processor as suggested by Wong et al.

Regarding claim 7, though the originals (including piece film 13) are required to be fed to the scanning position, the original is stopped for once it is fed to the scanning station and is supported by supporting surface (shown in Fig. 4(B)) (Fig. 4(A), col. 4, lines 3-58). A rotating mirror (32 in 16) scans the stopped original by reflecting light from the original onto the line sensor (CCD 17). The original supporting surface reads on the claimed transmissive scanning platform.

Regarding claim 8, a digital data storage medium is inherent in the system of Wong et al. See also Wong et al., col. 5, lines 13-31.

Regarding claim 9, the system of Wong et al. further comprises a computer (19), in addition to the processing unit (11), scanner (I/O device 35) and television display (17), the computer having a removable disc for storing digital data (col. 3, lines 15-22). Since the claims recite the open-end limitation "comprising", the claim does not prevent inclusion of other devices or parts. Thus, the removable disc in computer (19) reads on the claimed removable digital data storage medium.

Regarding claim 10, the display of Ishibe et al. is a television monitor.

Regarding claim 12, Wong et al. discussed above further includes an IR remote control (31) for communicating with the processing unit (11). The unit (11) receiving IR signals from the remote control (31) to alter the image on the display screen (TV screen) by performing operations including zooming (scaling) of data of the image (col. 20, line 62 – col. 21, line 19). It is inherent that the processing unit (11) converts the received IR signals to digital signals since the processing unit (11) is operating in a digital environment.



Regarding claim 16, the scanner/system and method of Ishibe et al. that a discussion of claim 16 is discussed for claims 13 and 1. The scanner/system does not include an IR remote control for changing the scale of the display image. However, an IR remote control (31) for communicating with a processing unit is taught by Wong et al. The unit (11) receiving an IR signal from the remote control (31) changes the scale of the display image by zooming of the data of the image (col. 20, line 62 – col. 21, line 19).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide Ishibe et al. with the feature of the IR remote control to change the scale of the display image as taught by Wong et al. for convenience of the user.

Regarding claim 18, see discussion for claim 16 with respect to the IR remote control (31), and in addition, see Wong et al., col. 21, lines 10-19 for display image manipulation using the IR remote control.

8. Claims 2 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over (U.S. Patent No. 5,838,364) as applied to claims 1 and 13 above in view of well known art.

Regarding claims 2 and 20, Ishibe et al. discloses a television monitor and not specifically an LCD projector. However, the examiner took Official Notice of the fact that LCD projectors having known display format are known in the art. In Ishibe et al., the known display format (scale and/or size) of the television monitor makes it possible

to convert the obtained image data to display image data having the known format or scale. Based on the teaching of Ishibe et al. in forming a display image of the known scale (see discussion for claims 1 and 13), it would have been obvious to one of ordinary skill in the art at the time the invention was made to convert the obtained image data to data forming a display image of the known LCD projector having a known display format or scale in order to allow viewing of the image using a different and relatively light-weight output device, the known LCD projector.

9. Claims 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over (U.S. Patent No. 5,838,364) and Wong et al. (U.S. Patent No. 5,631,745) as applied to claim 6 above in view of well known art.

Regarding claim 11, Ishibe et al. and Wong et al. discussed for claim 6 above disclose a television monitor and not specifically an LCD projector. However, the examiner took Official Notice of the fact that LCD projectors having known display format are known in the art. In Ishibe et al., the known display format (scale and/or size) of the television monitor makes it possible to convert the obtained image data to display image data having the known format or scale. Based on the teaching of Ishibe et al. in forming a display image of the known scale (see discussion for claims 1 and 13), it would have been obvious to one of ordinary skill in the art at the time the invention was made to convert the obtained image data of Ishibe et al. and Wong et al. discussed above to data forming a display image of the known LCD projector having a

known display format or scale in order to allow viewing of the image using a different and relatively light-weight output device, the known LCD projector.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hackett et al. (U.S. Patent No. 5,068,905) discloses a scaler gate array for scaling image data including image data generated by a digitizing scanner.

Reele (U.S. Patent No. 6,567,190) discloses a multi-functional scanner and method of assembling the same.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheukfan Lee whose telephone number is (703) 305-4867. The examiner can normally be reached on 9:30 a.m. to 6:00 p.m., Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L. Coles can be reached on (703) 305-4712. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Cheukfan Lee  
Aug. 23, 2004

  
*Cheukfan Lee*